Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A blending system, comprising:

a first material supply line to provide a first material;

a second material supply line to provide a second material;

a mixer fluidly connected downstream of the first and the second material supply lines to provide a blend of the first and second materials, the blend having a predetermined composition of the first and second materials and a predetermined flow rate; and

a process control system comprising a first flow control device positioned on the first material supply line; a second flow control device positioned on the second material supply line; a first sensor positioned on the first material supply line to provide a first sensor signal indicative of a concentration of the first material; a second sensor positioned on the second material supply line to provide a second sensor signal indicative of a concentration of the second material; and a controller, responsive to the first and second sensor signals, to provide a respective control signal to each of the first and ~~the~~ second flow control devices ~~based upon the first and second sensor signals~~ that respectively adjusts a flow rate of the first material and a flow rate of the second material to maintain the predetermined flow rate of the blend of the first and second materials having the predetermined composition in response to variations in the concentration of at least one of the first and second materials.

2. (Cancelled)

3. (Previously presented) The blending system of claim 1, wherein the first sensor is a density sensor.

4 -26. (Cancelled)

27. (Currently amended) A method of supplying blended process materials, comprising acts of:

~~providing~~ supplying a first process material;

~~providing~~ supplying a second process material;

blending the first and the second process materials to produce a blend having a predetermined composition of the first and second process materials;

sensing a first parameter of the first material to provide a first sensor signal indicative of a concentration of the first process material;

sensing a second parameter of the second material to provide a second sensor signal indicative of a concentration of the second process material;

regulating the supply of each of the first and second process materials based upon the first and second sensor signals; and

maintaining, responsive to variations in the concentration in at least one of the first and second process materials, a substantially constant flow rate of the blend of the first and second process materials having the predetermined composition.

28-40. (Cancelled)

41. (Previously presented) The blending system of claim 1, wherein the mixer is a static mixer.

42. (Previously presented) The blending system of any of claims 1 or 3, wherein the second sensor is a density sensor.

43. (Currently amended) The blending system of claim 1, further comprising:

a third material supply line to provide a third material, the third material line being fluidly connected upstream of the mixer, the mixer providing a blend of the first, second, and third materials having a predetermined composition of the first, second, and third materials at the predetermined flow rate;

wherein the process control system further includes:

a third flow control device positioned on the third material supply line fluidly connected upstream of the mixer; and

a third sensor positioned on the third material supply line;

wherein the respective control signal provided to the first flow control device is further based upon the third sensor signal, ~~and~~ the respective control signal provided to the second flow control device is further based upon the third sensor signal, and wherein the controller further provides a control signal to the third flow control device based upon the first, second, and third sensor signals, wherein the control signals provided to the first, second, and third flow control devices respectively adjusts the flow rate of the first material, the flow rate of the second material, and a flow rate of the third material to maintain the predetermined flow rate of the blend of the first, second and third materials having the predetermined composition in response to variations in the concentration of at least one of the first, second, and third materials.

44. (Cancelled)

45. (Previously presented) The method of claim 27, further comprising:

~~providing~~ supplying a third process material; and

sensing a third parameter of the third process material to provide a third sensor signal,

wherein the act of blending includes blending the first, ~~the~~ second, and ~~the~~ third process materials to produce a blend having a predetermined composition of the first, second and third process materials; and

~~sensing a third parameter of the third process material to provide a third sensor signal; and~~

wherein the act of regulating includes regulating the supply of each of the first, second, and third process materials based upon the first, second and third sensor signals ~~of the third process material based upon a third control signal based upon the first, second and third sensor signals;~~

~~wherein the first control signal is further based upon the third sensor signal, and the second control signal is further based upon the third sensor signal~~.

46. (Currently amended) A blending system to provide a blend having a ~~determined~~ predetermined composition of a first material and a second material, comprising:

a first material supply line to provide the first material;

a second material supply line to provide the second material;

a mixer fluidly connected downstream of the ~~of the~~ first and ~~the~~ second material supply lines to produce a blend of the first and second materials, the blend having the predetermined composition; and

means, responsive to changes in concentration of at least one of the first and second materials, for adjusting ~~the~~ an amount of the first and second materials provided to the mixer to maintain a substantially constant flow rate of the blend of the first and second materials having the predetermined composition ~~while continuously providing a substantially constant volumetric flow rate of the blended material having a determined composition~~.

47. (Previously presented) The blending system of claim 46, wherein the mixer is a static mixer.